Reviewer's report

Title: Multifocal VEP and OCT findings in patients with primary open angle glaucoma: A cross-sectional study

Version: 2 Date: 28 January 2012

Reviewer: Raimondo Forte

Reviewer's report:

In this cross sectional study the authors evaluated the anatomical and functional changes of optic nerve in eyes with primary open angle glaucoma (POAG) by the joint use of optical coherence tomography (OCT) and multifocal visual evoked potentials (mfVEP). They conclude that the joint use of mfVEP and OCT could be useful in better monitoring glaucoma progression.

This is an interesting study although several issues should be addressed.

Major Compulsory Revisions

In the Abstract the statistical significance of RNFL and VEP reduction is not evident. Please add the p values.

Was gonioscopy evaluated?

Were limits of spherical refraction and cylinder correction among inclusion criteria?

Definition of visual field defect on SAP should be given.

Association between VEP amplitude and RNFL thickness should be measured (i.e. with logistic regression).

If possible, association between VEP amplitude and macular thickness and optic disc topography measurements (rim volume, rim area) should be evaluated.

Although the study is about POAG no intraocular pressure values are showed. Please add mean IOP values in the manuscript and in Table 1.

Reference for definition of POAG should be provided.

ROC curves for the two diagnostic tests should be provided.

Figure 1 and Figure 3 are not strictly necessary and could be deleted.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

Statistical review: Yes, and I have assessed the statistics in my report.
Declaration of competing interests:

I declare that I have no competing interests